

What is claimed is:

1. A module comprising:

a substantially four-sided substrate having a first recess formed at a lateral side thereof;

5 an electrode at the first recess of said substrate, isolated by an absent distance from the lateral side of said substrate; and

an electronic component mounted on said substrate.

10 2. The module according to claim 1, further comprising first lands near the first recess on both sides of said substrate, said lands being coupled with said electrode.

15 3. The module according to claim 1,  
wherein said substrate is a multi-layer substrate, and  
wherein said multi-layer substrate includes:  
an internal layer;  
an internal pattern on said internal layer; and  
a second land near said electrode on said internal layer,  
said second land being connected to said internal pattern and said electrode.

20 4. The module according to claim 1, further comprising another electrode at the lateral side of said substrate.

25 5. The module according to claim 1, further comprising another electrode at a corner of said substrate.

6. The module according to claim 1, wherein said substrate has a

plurality of second recesses formed at the first recess, and the second recesses extend from an upper side to an lower side of said substrate.

7. The module according to claim 6, further comprising a shield case  
5 of metal including a leg thereof joined by soldering to said first electrode, said shield case being mounted on said substrate for covering said electronic component.

8. The module according to claim 7, wherein the lateral side of said  
10 substrate projects outwardly from said shield case.

9. The module according to claim 7, wherein the lateral side of said substrate is substantially flush with a lateral side of said shield case.

10. The module according to claim 7, wherein said shield case has a  
15 lateral side thereof being rougher than an upper side thereof.

11. A method comprising the steps of:  
forming a hole at a joint between substrates in a mother board  
20 which incorporates the substrates each having substantially a four-sided shape;

forming a metal-plated portion around the hole and on a internal side of a lateral side of the hole;

covering the metal plated portion with a resist;

25 curing the resist;

placing a mask over the resist and then exposing the resist to light to develop an absent region along the joint;

removing the resist from the absent region; and

removing a portion of the metal-plated portion, the portion corresponding to the absent region.

5           12. The method according to claim 11, further comprising the step of cutting the joint of the mother board at a smaller width than the absent region.

10           13. The method according to claim 11, wherein said step of forming the hole includes the sub-step of forming the holes at corners of the substrates of the mother board.

15           14. The method according to claim 11,  
              wherein the hole is a slot hole, and  
              wherein said step of forming the hole including the sub-step of drilling consecutive round holes to form the slot hole.

20           15. The method according to claim 14, wherein said step of forming the hole includes the sub-step of drilling the round holes in alternately.

25           16. A method of manufacturing a module, comprising the steps of:  
              forming a hole at a joint between substrates in a mother board which incorporates the substrates each having substantially a four-sided shape;  
              forming a metal-plated portion around the hole and on a internal side of a lateral side of the hole;  
              covering the metal plated portion with a resist;

placing a mask over the resist, and then exposing a portion of the resist corresponding to except an absent region along the joint to light to develop the portion for curing the portion;

removing the resist except the cured portion; and

5 removing a portion of the metal-plated portion, the portion corresponding to the absent region.

10 17. The method according to claim 16, further comprising the step of cutting the joint of the mother board at a smaller width than the absent region.

15 18. The method according to claim 16, wherein said step of forming the hole includes the sub-step of forming the hole at each vertex point in the printed mother board where four adjacent substrates are met.

19. The method according to claim 16,  
wherein the through hole is a slot hole, and  
wherein said step of forming the hole included the sub-step of  
drilling consecutive round holes to form the slot hole.

20 20. The method according to claim 19, wherein said step of forming the hole includes the sub-step of drilling the round holes in alternately.